10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLC38A9 Rabbit pAb

SLC38A9 Rabbit pAb
Catalog # AP57677

Product Information

Application	WB
Primary Accession	Q8NBW4
Reactivity	Human
Predicted	Rat, Cat, Dog, Mouse, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	63776
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC38A9
Epitope Specificity	30-130/561
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Additional Information

Gene ID	153129
Other Names	Neutral amino acid transporter 9, Solute carrier family 38 member 9 {ECO:0000312|HGNC:HGNC:26907}, Up-regulated in lung cancer 11 {ECO:0000303|Ref.2}, SLC38A9 (HGNC:26907)
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

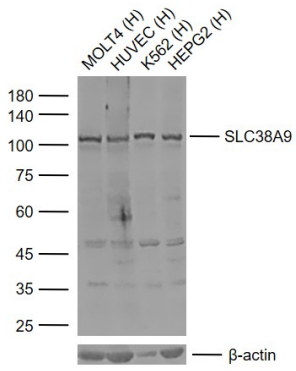
Name	SLC38A9 (HGNC:26907)
Function	Lysosomal amino acid transporter involved in the activation of mTORC1 in response to amino acid levels (PubMed:25561175, PubMed:25567906, PubMed:29053970). Probably acts as an amino acid sensor of the Rag GTPases and Ragulator complexes, 2 complexes involved in amino acid sensing and activation of mTORC1, a signaling complex promoting cell growth

	in response to growth factors, energy levels, and amino acids (PubMed:25567906, PubMed:29053970). Following activation by amino acids, the Ragulator and Rag GTPases function as a scaffold recruiting mTORC1 to lysosomes where it is in turn activated (PubMed:25561175, PubMed:25567906). SLC38A9 mediates transport of amino acids with low capacity and specificity with a slight preference for polar amino acids (PubMed:25561175, PubMed:25567906). Acts as an arginine sensor (PubMed:25567906, PubMed:29053970, PubMed:31295473). Following activation by arginine binding, mediates transport of L- glutamine, leucine and tyrosine with high efficiency, and is required for the efficient utilization of these amino acids after lysosomal protein degradation (PubMed:29053970, PubMed:31295473). However, the transport mechanism is not well defined and the role of sodium is not clear (PubMed:25561175, PubMed:31295473). Can disassemble the lysosomal folliculin complex (LFC), and thereby triggers GAP activity of FLCN:FNIP2 toward RRAGC (PubMed:32868926). Acts as an cholesterol sensor that conveys increases in lysosomal cholesterol, leading to lysosomal recruitment and activation of mTORC1 via the Rag GTPases (PubMed:28336668). Guanine exchange factor (GEF) that, upon arginine binding, stimulates GDP release from RRAGA and therefore activates the Rag GTPase heterodimer and the mTORC1 pathway in response to nutrient sufficiency (PubMed:30181260).
Cellular Location	Lysosome membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q08BA4}. Late endosome membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q08BA4}

Background

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Images



Sample:
Lane 1: Human MOLT4 cell lysates
Lane 2: Human HUVEC cell lysates
Lane 3: Human K562 cell lysates
Lane 4: Human HEPG2 Cell Lysates

Primary: Anti- SLC38A9 (AP57677) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 50 kDa
Observed band size: 110 kDa